

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
N. 94881		
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/IB2005/002826	15/08/2005	30/08/2004
Applicant		
TOYOTA JIDOSHA KABUSHIKI KAISHA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

CONTROL APPARATUS AND CONTROL METHOD FOR INTERNAL COMBUSTION ENGINE PROVIDED WITH SECONDARY AIR SUPPLY

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

- a. the figure of the drawings to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/ 2005/002826

## A. CLASSIFICATION OF SUBJECT MATTER

F01N11/00

F01N3/22

F01N3/30

F02D9/02

F01N3/32

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F01N F02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 852 929 A (KATO ET AL) 29 December 1998 (1998-12-29) column 1, line 66 - column 2, line 14; claims 1,3; figures.	1,8
A	EP 0 663 516 A (HITACHI AUTOMOTIVE ENGINEERING CO., LTD; HITACHI, LTD; HITACHI CAR ENG) 19 July 1995 (1995-07-19) column 3, line 36 - column 4, line 53; figures	1,8
A	US 5 140 810 A (KURODA ET AL) 25 August 1992 (1992-08-25) column 2, line 10 - column 3, line 29; figures	1,8
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the international search

10 January 2006

Date of mailing of the international search report

17/01/2006

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 103 44 910 A1 (GENERAL MOTORS CORP. , DETROIT) 13 May 2004 (2004-05-13) paragraphs '0005! - '0010!; figures -----	1,8
A	PATENT ABSTRACTS OF JAPAN vol. 015, no. 129 (M-1098), 28 March 1991 (1991-03-28) & JP 03 015619 A (NISSAN MOTOR CO LTD), 24 January 1991 (1991-01-24) abstract -----	1,8

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ 2005/002826

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5852929	A	29-12-1998	JP	3602615 B2	15-12-2004
			JP	9021312 A	21-01-1997
EP 0663516	A	19-07-1995	DE	69410427 D1	25-06-1998
			DE	69410427 T2	05-11-1998
			JP	7167747 A	04-07-1995
			US	5560199 A	01-10-1996
US 5140810	A	25-08-1992	JP	2724387 B2	09-03-1998
			JP	4109023 A	10-04-1992
DE 10344910	A1	13-05-2004	US	2004074453 A1	22-04-2004
JP 03015619	A	24-01-1991	NONE		